

**Countryside Landfill - Grayslake, IL**  
**January 2010**

**Purpose**

- Provide update on Landfill Specialty Team activity at the Countryside Landfill in Grayslake, IL.

**Background/Summary**

- In 11/08, ARD received complaints of rotten-egg odors from residents of the Prairie Crossing home development, located just west of a 200-acre landfill operated by Waste Management (WMX).
- In response, staff from the Lake County Health Department (LCHD), IEPA, and MMB visited the site.
- Subsequent to the site visit, WMX addressed the problem by installing additional gas extraction wells and leachate collection capacity in landfill cells generating the odor, which accepted 2000 tons of construction and demolition debris fines, which are believed to be generating hydrogen sulfide gas.
- MMB, LCHD and IEPA visited the site again in 8/09 in response to additional odor complaints.
- In response, WMX began conducting surface emission scans and is further enhancing the gas collection system to increase vacuum in areas of the landfill generating odors.
- MMB suggested deployment of an H<sub>2</sub>S monitoring system to measure the impact of the improvements, and is working in coordination with LCHD, IEPA, WMX, the Solid Waste Agency of Lake County (SWALCO), and the Lake County Administrator to develop a monitoring plan.

**Schedule**

- In 12.09, MMB and local partners developed a conceptual plan for perimeter monitoring, which is currently under discussion. The plan would:
  - Establish a baseline of H<sub>2</sub>S emissions at the property line,
  - Define fluctuations in H<sub>2</sub>S emissions related to weather, season and time, and
  - Determine if the controls and has system enhancements are effective.
- The plan calls for EPA to provide 3 monitors and WMX to provide meteorological stations and other necessary equipment.
- The system could be operational by 3/10 and would operate for 6-12 months. H<sub>2</sub>S data would be collected and analyzed by a third party contractor.

**Issues**

- Residents of Prairie Crossing are concerned about potential health risks associated with the odors.
- Lake County is interested in developing an enforceable odor standard through their host agreement with WMX or local ordinance.
- WMX entered into an agreement with Prairie Crossing under which they must purchase neighboring properties if the owner is unable to sell their property as a result of the landfill at the value paid by the owner plus the consumer price index.

**Next Steps/Recommendations**

- Obtain monitors and establish H<sub>2</sub>S monitoring network.
- Work with Lake County and IEPA to respond to citizen complaints and inquiries.
- Continue technical assistance to WMX on control strategies and landfill gas and leachate collection system enhancements to control H<sub>2</sub>S odors.